REMARKS

Note regarding filing date of present patent application

Applicant notes that the filing date of the present patent application is listed incorrectly. The present patent application was filed on May 24, 2001, and a preliminary amendment adding claims 2-48 was filed on September 19, 2001. However, the patent application is incorrectly listed as having been filed on the date the preliminary amendment was filed, or September 19, 2001. Therefore, Applicant requests that the filing date be updated to appropriately reflect that the patent application was filed on May 24, 2001, and not on September 19, 2001, when the preliminary amendment was filed.

Claim objections, and claim rejections under 35 USC 112

Many of the claims have been objected to, and rejected under 35 USC 112, second paragraph, as being indefinite, as recited in paragraphs 2-16 of the Office Action, on pages 2-4 thereof. Applicant has made amendments to the claims to overcome these objections and rejections, and in general does not discuss in detail the particular objections and rejections herein, since they are now moot in light of the amendments. However, Applicant does provide two comments, the first regarding the rejections proffered in paragraphs 10 and 11 of the Office Action, and the second regarding the rejections proffered in paragraphs 13-16 thereof.

First, paragraphs 10 and 11 of the Office Action rejected claims 35 and 36 because K, L, and N in claim 35 were not defined as to whether they are whole numbers or fractions, and because K, L, M, and N in claim 36 were not defined as to whether they are whole numbers or fractions. Applicant disagrees. Claim 35, as originally filed, recites "wherein K and L are positive integers". Furthermore, claim 35 depends from claim 14, and claim 14, as originally filed, recites "wherein N and M are positive integers". Claim 36, as originally filed, recites that "K, L, M and N are all positive integers." Therefore, the rejections of claims 35 and 36 under 35

USC 112, second paragraph, on the basis that it is not indicated whether the various terms K, L, M and N are whole numbers or fractions is moot, and Applicant requests their withdrawal.

Second, paragraphs 13-16 of the Office Action rejected claims 1, 2, 8, 14, and 20 because various limitations did not have sufficient antecedent basis. For example, in claim 1, "first information" and "second information" are recited, and the Examiner stated that there is insufficient antecedent basis for these limitations. Applicant disagrees. Neither of these limitations is preceded by "the" or "said," and therefore they do not require antecedent basis -- indeed, they are the first recitations of these limitations in the claim. However, to expedite prosecution, Applicant has amended the limitations to be preceded by the word "a," such that it is now quite clear that no antecedent basis is required. The same reasoning holds, and similar corrective action has been performed, for the other claims 2, 8, 14, and 20 that were rejected on this basis.

Double patenting

Claims 2-11 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-11 of copending application, serial no. 09/864,825. Applicant acknowledges this provisional rejection, but does not necessarily agree. Because the rejection is provisional, however, it is premature for Applicant to either argue the rejection or file a terminal disclaimer as to the instant patent application relative to patent application serial no. 09/864,825. If claims 2-11 were otherwise allowable, applicant would consider filing a terminal disclaimer.

Claim rejections under 35 USC 103

All of the pending claims 1-48 have been rejected under 35 USC 103(a) as being unpatentable over Jarriel (6,553,403) in view of Johnson (5,987,135). Of these claims, claims 1, 2, 8, 14, 36, and 39 are independent claims, from which the remaining pending claims ultimately depend. Applicant contends that the independent claims are patentable over Jarriel in view of Johnson, and therefore the dependent claims are patentable for at least the same reasons.

Applicant particularly discusses claim 2 as representative of the independent claims insofar as patentability over Jarriel in view of Johnson is concerned, as is discussed herein. Specifically, claim 2 recites commands being sent that order startup, shutdown, or moving of a copy of a managed characteristic application, "based on . . . performance and status of . . . all copies of the managed characteristic application." The quoted limitation is found in identical or substantially identical form in each of the independent claims. At least this limitation renders the claimed subject matter patentable over Jarriel in view of Johnson.

The copies of the managed characteristic application as recited in the claims are instantiated on different hosts, such as different computing devices. Therefore, that the claimed invention is limited to ordering startup, shutdown, or moving of a copy of the application "based on the performance and status of all copies of the application" means that the performance and status of *all* the copies of the application, on *all* the hosts, provide the basis for ordering the startup, shutdown, or moving of a copy of the application on one of the hosts. Jarriel in view of Johnson does not teach or suggest ordering startup, shutdown or moving of a copy of an application "based on the performance and status of all copies of the application."

In particular, Jarriel in view of Johnson only teaches ordering the startup, shutdown or moving of a copy of an application based on the performance and status of a *single copy* of the application, and not on all copies of the applications. The Examiner specifically relies upon Jarriel as teaching responsiveness to "performance and status of all applications including [all] copies of the managed characteristic application," citing the Abstract; column 1, line 50, through column 2, line 30; column 4, lines 40-67; and, column 7, lines 5-50 of Jarriel. Applicant

discusses these specific excerpts of Jarriel to show how Jarriel in view of Johnson teaches responsiveness based on the performance and status of a single copy of an application, and not on all the copies of the application running on all the hosts.

The Abstract of Jarriel states that:

> At the given managed computer, the routine executes a monitoring agent in the runtime environment to determine whether a given threshold has been executed. Then, a given action is taken if the given threshold has been exceeded. . . . Execution of the monitoring agent involves taking a measurement, comparing the measurement against the given threshold, and then taking some corrective action if possible.

Thus, Jarriel, and therefore Jarriel in view of Johnson, teaches responsiveness whereby the monitoring agent *at the given managed computer* takes a measurement, and if this measurement exceeds a given threshold, takes corrective action. Thus, the performance of a single copy of an application running on a single host (i.e., the given managed computer) is used as the basis for taking correction action. This is distinct from the claimed subject matter, in which the actions in question are accomplished based on the performance and status of *all* the copies of the application, which will be all the copies running on *all* the hosts.

Column 1, line 50, through column 2, line 30, of Jarriel indicates that:

> Another significant problem is that *local* monitors do not have sufficient built-in response capability. . . . [I]t is often insufficient to note merely that a monitored value of a particular resource [at a given computer] is out of tolerance. Whenever possible, a *local* attempt to correct the situation must be made.

Here, too, Jarriel, and therefore Jarriel in view of Johnson, teaches responsiveness in which the monitors are locally deployed, monitor resources at their respective computers, and perform local attempts to correct situations in which performance is out of tolerance. That is, a given local monitor in Jarriel is not responsive to performance and status of *all* the copies of the applications running on *all* the hosts, as is explicitly and implicitly claimed in the claimed subject matter. Rather, Jarriel teaches that a monitor at a given machine or host should be able to *locally* respond to its own *local monitoring* of applications running thereon that are out of tolerance. In other

words, a monitor running on a machine monitors the performance and status of its own application, and where such performance and status is out of tolerance, it performs corrective action. The monitor does not consider the performance and status of *all* the copies of the applications running on *all* the machines or hosts, in contradistinction to the claimed invention.

Column 4, lines 40-67, of Jarriel do not discuss the basis by which responsiveness of monitoring is accomplished at all, and therefore is not quoted or excerpted herein. Finally, column 7, lines 5-50, of Jarriel, note that:

> A representative monitoring operation involves making a measurement, comparing the measured value against threshold(s), and performing a response for out-of-tolerance condition. A monitoring agent is internally organized as a program, with measurement, threshold comparison and response elements. To the extent possible, *a monitoring agent must attempt to correct the detected condition when a threshold has been exceeded.*
>
> . . . .
>
> Moreover, monitor agents may take local action, remote action, or send an event in response to an out-of-tolerance condition, with local action strongly preferred.

Thus, Jarriel, and therefore Jarriel in view of Johnson, employs a monitoring agent at a given computer that may note the status and performance of applications running on that computer. In response, if the status and performance of its applications are out of tolerance, then an action is performed, which may be local or remote. However, the action is performed *only* on the basis of the monitoring performed by that monitoring agent, on the computer in question. By comparison, in the claimed invention, the action is performed on the basis of monitoring of the status and performance of *all* copies of the applications, running on *all* the hosts. Here, too, then, Jarriel in view of Johnson does not teach or suggest the claimed subject matter. A monitoring agent runs on each distributed computer as taught by Jarriel in view of Johnson. While that monitoring agent monitors the performance and status of its application on its own computer, and takes actions in response thereto, the agent does not take actions in response to the performance and status of all the copies of the applications running on all the distributed computers within the system, in contradistinction to the claimed subject matter. The agent in Jarriel in view of

Johnson only monitors, and thus only knows of, the performance and status of the application on its own computer, and not of the performance and status of the applications on the other computers, and therefore cannot perform actions based on the performance and status of all the applications on all the computers.

Applicant further submits that Jarriel in view of Johnson may not properly be modified to read on the claimed invention such that responsiveness is made on a system-wide basis so that the performance and status of all the copies of the applications, running on all the hosts within a system, is taken into account. In particular, the intended purpose of Jarriel is to provide for *local* responsiveness to *local* monitoring. As previously quoted in Jarriel:

> [I]t is often insufficient to note merely that a monitored value of a particular resource is out of tolerance. Whenever possible, a local attempt to correct the situation must be made. Known systems do not have adequate local response capability. . . . .
>
> The prior art does not adequately address[] these and other problems.

(Col. 1, ll. 59-67, through col. 2, ll. 1-2). Thus, the intended purpose of Jarriel is to allow local attempts to locally correct monitored problems. If Jarriel were instead modified so that corrective actions were taken in response to monitoring the performance and status of *all* the applications running on *all* the hosts of a system, then this modification would render Jarriel unsuitable for its intended purpose. As such, Jarriel would no longer be taking local actions to correct local problems. Rather, Jarriel would be taking local actions to correct problems occurring on a system-wide basis, not locally, and local responsiveness would not longer be achieved. Applicant notes that the MPEP states that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose." (MPEP 2143.01) That is, "[i]f [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." (*Id.*, citing *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)) (Emphasis added).

For these reasons, then, Jarriel in view of Johnson does not teach or suggest the claimed subject matter, and cannot be additionally modified to teach the claimed subject matter.

Conclusion

Applicant has made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues, it is respectfully requested that the Examiner telephone Scott Boalick, Applicant's Attorney, at 540-653-8061, so that such issues may be resolved expeditiously. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited. Please apply any charges or credits to deposit account 50-0967.

Respectfully Submitted,

January 11, 2005
Date

Scott Boalick
Reg. No. 42,337
Attorney/Agent for Applicant(s)

Naval Surface Warfare Center
Dahlgren Division
17320 Dahlgren Road
Code XDC1
Dahlgren, VA 22448-5110
Phone: (540) 653-8061
Fax: (540) 653-8879